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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,004	10/02/2003	Thomas J. Ribarich	IR-2171 (2-3689)	9223

7590 05/03/2004

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EXAMINER

SAWHNEY, HARGOBIND S

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/678,004

Applicant(s)

RIBARICH, THOMAS J.

Examiner

Hargobind S Sawhney

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AW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 38-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 38-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) 17-37 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/15/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The preliminary amendment filed on March 3, 2004 has been entered.

Accordingly, new claims 32-42 have been added.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-16 and 38-42, drawn to combination – a compact fluorescent lamp package- classified in class 362, subclass 260.
 - II. Claims 17-37, drawn to a subcombination- a printed circuit board with heat sink- classified in class 361, sub-class 760.

Inventions I and II are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination - a compact fluorescent lamp package - as claimed does not require the particulars of the subcombination - a printed circuit board with heat sink- as claimed because each may be patentable without the details of the other. Each of the

combination and subcombinations has separate utility. A compact fluorescent lamp package is applicable for illumination, whereas, a printed circuit board with heat sink has broad applications including computers, signaling equipment or copying and printing equipment.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

3. During a telephone conversation on Mr. Kourosh Salehi made an election without traverse to prosecute the invention of invention I, claims 1-16 and 38-42, and claims 17-37 were withdrawn from further consideration as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-15 and 38-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishio et al. (US Patent No.: 6,437,502 B1).

Regarding claims 1-15 and 38-41, Nishio et al. ('502 B1) discloses a compact florescent lamp package 10 (Figure 1, column 11, lines 18 and 19) comprising:

- a base 12 electrically connectable to the electrical socket capable for receiving an ordinary incandescent lamp (Figure 1, column 11, line 20);
- the base including an open end, a closed end and a wall enclosing the defined space;
- a multi-chip module 16 including a ballast circuit on a circuit board 24 (Figures 1 and 7, column 11, line 20, and column 15, lines 45-55);
- the multi-chip module being contained entirely within the space defined in the base 12 (Figure 1), and the multi-chip module being electrically connected to the base with the element 25 (Figure 1);
- a fluorescent lamp 18 extending away from the base 12 (Figure 1), and operatively connected to the ballast circuit included in the ballast circuit 24 (Figures 1 and 3, column 14, lines 43-47);

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- a diffuser cover 17 enveloping the fluorescent lamp 18, and providing appearance of an ordinary incandescent lamp (Figure 1, column 11, line 21);
- the base 12 being an Edison screw base (Figure 1, column 11, lines 39 and 40);
- the multi-chip module 16 being mounted on a single circuit board (Figure 1)
- the ballast circuit elements including 25 and 26 being mounted on both sides of the circuit board 24 (Figure 1, column 11, lines 57-59);
- the design independent electronic components including power switching devices – diode bridge, rectifiers etc. – being mounted on one side of the circuit board 24 (Figure 1, column 11, line 67, and column 12, lines 1-3);
- the design dependent electronic components, including capacitors, being mounted on another side of the circuit board 24 (Figure 1, column 11, lines 63-67);
- the multi-chip module 16 formed on a circular circuit board having its parameter following the contour of the walls of the base 12 (Figures 1 and 12);
- the multi-chip module 16 formed on a generally polygonal circuit board (Figure 1, column 18, lines 24-28);
- the wall of the base 12 inherently serving as a connector connecting the lamp to first pole of a power line; and the closed end of the base inherently

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insulated from the wall, and connecting to the second pole of the power line (Figures 1,3 and 8);

- the multi-chip module 16 being electrically connected to the end connector via a second electrical wire 25 (Figures 1 and 3); further the multi-chip module 16 being electrically connected to the wall of the base with a first wire (not shown) operationally required to close the circuit; and
- the fluorescent lamp 18 being connected to the multi-chip module 16 via respective filament terminals 48 (Figures 1 and 3, column 14, lines 43-47).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 9 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishio et al. (US Patent No.: 6,437,502 B1) in view of Nomoto et al. (US Patent No.: 4,739,222).

regarding Claims 9 and 42, dependent on claims 1 and 38 respectively, Nishio et al. ('502 B1) discloses a compact Fluorescent lamp package comprising a base housing a multi-chip module in its cavity space. However, Nishio et al. ('502 B1) does not

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specifically teach the cavity space of the base including thermal epoxy for mechanical stability and thermal management.

On the other hand, Nomoto et al. ('222) disclose a compact fluorescent lamp package (Figures 1A, 1B, 3A and 3B) comprising a base 1 housing electronic elements including 5 and 7 (Figures 1A, 1B, 3A and 3B, column 2, lines 50, and column 3, lines 32 and 33). Nomoto et al. ('222) further teaches the cavity space of the base including thermal epoxy for mechanical stability and thermal management (Figures 1A, 1B, 3A and 3B, column 2, lines 4-9, 12, 13 and 65-68).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the compact Fluorescent lamp package of Nishio et al. ('502 B1) by providing the thermal epoxy compound as taught by Nomoto et al. ('222) for benefit and advantage of efficient transfer of heat generated during operation of the lamp.

9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishio et al. (US Patent No.: 6,437,502 B1) in view of Matsushita (Japanese Patent No.: JP 11025751 A).

Nishio et al. ('502 B1) discloses a compact Fluorescent lamp package comprising a base housing a multi-chip module including a ballast circuit on a circuit board. However, Nishio et al. ('502 B1) does not specifically teach the circuit including a heat sink disposed on one of the major surfaces of the circuit board.

On the other hand, Matsushita (Japanese Patent No.: JP 11025751 A) discloses a heat dissipation structure of a fluorescent lamp lighting system comprising a circuit

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board 3 having a heat sink mounted on its one of the major surfaces (Figure 1, English translated abstract).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the compact Fluorescent lamp package of Nishio et al. ('502 B1) by providing heat sink as taught by Matsushita (Japanese Patent No.: JP 11025751 A) for the advantages and benefits of preventing operational losses and component replacements due to radiant heat of the lamp.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sakai et al (U.S. Patent No. 6,582,269 B2); Yan (U.S. Patent No.: US 6,494,730 B1); Gyoten et al. (U.S. Patent No. 6,492,773 B2); Eberson et al. (U.S. Patent No. 6,150,761); Wang (U.S. Patent No. 5,971,564); Martich et al. (U.S. Patent No. 5,961,204); Moisin (U.S. Patent No. 5,955,841); Cho (U.S. Patent No. 5,545,950); De Jong et al. (U.S. Patent No. 5,164,635) and Muessli (U.S. Patent No. 4,961,027)

Each of the above-indicated prior arts disclose an illuminating apparatus comprising some of the claimed features claimed by the applicant.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571-272-2380. The examiner can normally be reached on 6:15 - 2:45.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2956.

HSS

4/22/2004

A handwritten signature in black ink, appearing to read 'Th M Sember', with a long, sweeping horizontal stroke extending to the right.

THOMAS M. SEMBER
PRIMARY EXAMINER